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EXAMINER	
LY, NGHI H	
ART UNIT	**PAPER NUMBER**
2686	

DATE MAILED: 11/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/077,013	STEFAN ET AL.	
	Examiner	Art Unit	
	Nghi H. Ly	2686	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 August 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-3, 7-11, 15-17, 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wakamatsu et al (US 6,819,268) in view of Dupray (US 6,249,252).

Regarding claims 1, 9, 17 and 21, Wakamatsu teaches a method of providing information to a mobile vehicle user (see Abstract and column 1, lines 23-33, see "moving body such as vehicle") comprising: receiving broadcast information at the mobile unit (column 1, lines 23-33, see "news, weather forecast"), wherein the broadcast information comprises information location coordinate data (see column 1,

lines 43-54, see "target area information whose target area is specified may be added to the information" and see "postal code" or "area name" reads on Applicant's "information location coordinate data"), determining whether the information location coordinate data resides within an area (see column 2, line 1 to column 4, line 48 and column 2, lines 25-34), and presenting the broadcast information to the mobile user based on the determination (see Abstract and column 2, line 1 to column 4, line 48, see "for display the information...", and see column 13, lines 36-55).

Wakamatsu does not specifically disclose determining whether the information location coordinate data resides within a convex hull.

Dupray teaches determining whether the information location coordinate data resides within a convex hull (see column 6, lines 12-15 and column 6, lines 30-32).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Dupray into the system of Wakamatsu so that a convex hull of the verified locations may be used as a basis for determining a new of the target mobile station (see Dupray, column 6, lines 12-15).

Regarding claim 2, Wakamatsu further teaches the broadcast information is received from a broadcast service selected from a group consisting of a radio data service, a radio broadcast data service, a satellite broadcast service, a radio broadcast service, and a wireless communications broadcast service (see column 1, lines 23-33).

Regarding claim 3, Wakamatsu further teaches the information location coordinate data comprises a longitude and a latitude associated with the broadcast information (column 9, lines 37-39, see "latitude" and "longitude").

Regarding claim 7, Wakamatsu further teaches transferring the broadcast information to a vehicle presentation manager (see column 1, lines 23-54 and see fig.1, navigation controller 1), rendering the broadcast information with the vehicle presentation manager (see column 1, lines 23-54 and column 2, lines 1-34), and sending the broadcast information to a presentation device (see column 1, lines 23-54 and column 2, lines 1-34).

Regarding claim 8, Wakamatsu further teaches the presentation device is selected from a group consisting of a visual display, an audio device, and an audio-visual display device (see Abstract and column 1, lines 39-42).

Regarding claim 10, Wakamatsu further teaches the broadcast information is received from a broadcast service selected from a group consisting of a radio data service, a radio broadcast data service, a satellite broadcast service, a radio broadcast service, and a wireless communications broadcast service (see column 1, lines 23-33).

Regarding claim 11, Wakamatsu further teaches the information location coordinate data comprises a longitude and a latitude associated with the broadcast information (column 9, lines 37-39, see "latitude" and "longitude").

Regarding claim 15, Wakamatsu further teaches computer program code to transfer the broadcast information to a vehicle presentation manager (see column 1, lines 23-54 and see fig.1, navigation controller 1), computer program code to render the broadcast information with the vehicle presentation manager; and computer program code to send the broadcast information to a presentation device (see column 1, lines 23-54 and column 2, lines 1-34).

Regarding claim 16, Wakamatsu further teaches the presentation device is selected from a group consisting of a visual display, an audio device, and an audio-visual display device (see Abstract and column 1, lines 39-42).

Regarding claim 20, Wakamatsu further teaches transferring the broadcast information to a vehicle presentation manager (see column 1, lines 23-54 and see fig.1, navigation controller 1), means for rendering the broadcast information with the vehicle presentation manager (see column 1, lines 23-54 and column 2, lines 1-34), and means for sending the broadcast information to a presentation device (see column 1, lines 23-54 and column 2, lines 1-34).

5. Claims 4-6, 12-14, 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wakamatsu et al (US 6,819,268) in view of Dupray (US 6,249,252) and further in view of Park (US 5,627,549).

Regarding claim 4, the combination of Wakamatsu and Dupray teaches generating the convex hull as recited in claim 1. The combination of Wakamatsu and Dupray does not specifically disclose generating the geographic point from the recorded vehicle location coordinates.

Park teaches generating the geographic point from the recorded vehicle location coordinates (see column 7, lines 15-18).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Park into the system of

Wakamatsu and Dupray in order to construct a database containing locations of particular interest to a particular person (see Park, Abstract).

Regarding claim 5, the combination of Wakamatsu and Dupray teaches the convex hull as recited in claim 1. The combination of Wakamatsu and Dupray does not specifically disclose updating the geographic point based on a coordinate input.

Park teaches updating the geographic point based on a coordinate input (see column 7, lines 12-18).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Park into the system of Wakamatsu and Dupray in order to construct a database containing locations of particular interest to a particular person (see Park, Abstract).

Regarding claim 6, Wakamatsu further teaches the coordinate input is selected from a group consisting of a current vehicle location coordinate, a previous vehicle location coordinate, a recorded vehicle location coordinate input, a collection period, a collection frequency, a vehicle location coordinate retention period, a global positioning service quality indicator (see column 2, lines 1-24 and column 9, lines 37-39, see "latitude" and "longitude").

Regarding claim 12, the combination of Wakamatsu and Dupray teaches the computer program code to record a plurality of vehicle location coordinates and the convex hull as recited in claim 9. The combination of Wakamatsu and Dupray does not specifically disclose computer program code to generate the geographic point from the recorded vehicle location coordinates.

Park teaches the computer program code to generate the geographic point from the recorded vehicle location coordinates (see column 7, lines 15-18).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Park into the system of Wakamatsu and Dupray in order to construct a database containing locations of particular interest to a particular person (see Park, Abstract).

Regarding claim 13, the combination of Wakamatsu and Dupray teaches the convex hull as recited in claim 9. The combination of Wakamatsu and Dupray does not specifically disclose computer program code to update the geographic point based on a coordinate input.

Park teaches computer program code to update the geographic point based on a coordinate input (see column 7, lines 12-18).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Park into the system of Wakamatsu and Dupray in order to construct a database containing locations of particular interest to a particular person (see Park, Abstract).

Regarding claim 14, Wakamatsu further teaches the coordinate input is selected from a group consisting of a current vehicle location coordinate, a previous vehicle location coordinate, a recorded vehicle location coordinate input, a collection period, a collection frequency, a vehicle location coordinate retention period, a global positioning service quality indicator, and a user location coordinate input (see column 2, lines 1-24 and column 9, lines 37-39, see "latitude" and "longitude").

Regarding claim 18, the combination of Wakamatsu and Dupray teaches the convex hull as recited in claim 17. The combination of Wakamatsu and Dupray does not specifically disclose recording a plurality of vehicle location coordinates; and means for generating the geographic point from the recorded vehicle location coordinates.

Park teaches recording a plurality of vehicle location coordinates (see column 7, lines 15-18), and means for generating the geographic point from the recorded vehicle location coordinates (see column 7, lines 15-18).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Park into the system of Wakamatsu and Dupray in order to construct a database containing locations of particular interest to a particular person (see Park, Abstract).

Regarding claim 19, the combination of Wakamatsu and Dupray teaches the convex hull as recited in claim 17. The combination of Wakamatsu and Dupray does not specifically disclose updating the geographic point based on a coordinate input.

Park teaches updating the geographic point based on a coordinate input (see column 7, lines 12-18).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Park into the system of Wakamatsu and Dupray in order to construct a database containing locations of particular interest to a particular person (see Park, Abstract).

6. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wakamatsu et al (US 6,819,268) in view of Dupray (US 6,249,252) and further in view of Stewart (US 6,546,257).

Regarding claim 22, Dupray teaches the convex hull (see Dupray, column 6, lines 12-15 and column 6, lines 30-32) is determined in response to a plurality of received and stored longitudinal and latitudinal coordinate positions from the GPS unit (see Wakamatsu, column 2, lines 25-34 and column 9, lines 37-39, see "latitude" and "longitude").

The combination of Wakamatsu and Dupray does not specifically disclose the an area in which mobile vehicle user often drives.

Stewart teaches the convex hull represents an area in which mobile vehicle user often drives (see column 2, lines 14-36 and column 3, lines 4-8).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Stewart into the system of Wakamatsu and Dupray so that information is retrieved which is within a predetermined position relative to the repeated travel pattern (see Stewart, Abstract).

Response to Arguments

7. Applicant's arguments with respect to claims 1-22 have been considered but are moot in view of the new ground(s) of rejection.

On page 12 of applicant's remarks, Applicant further argues that "*Convex hull is defined as the smallest convex polygon for which each point in the polygon is either on the boundary or in its interior*".

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., *Convex hull is defined as the smallest convex polygon for which each point in the polygon is either on the boundary or in its interior*) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

On page 13 of applicant's remarks, Applicant further argues that "a convex hull is for a set **S** in space...".

In response, Applicant's specification and claims do not recite "a convex hull is for a set **S** in space...". Therefore, the Examiner is not required to respond to.

On page 13 of applicant's remarks, Applicant argues that Park fails to teach generating a convex hull from the recorded vehicle location coordinates.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In this case, Wakamatsu and Dupray teaches a convex hull (see Examiner's answer of claim 4 above), Park teaches generating (see Park, column 7, lines 15-18,

see "creates a geographic point corresponding to current vehicle location") and the combination of Wakamatsu, Dupray and Park teaches Applicant's claimed limitation. In addition Applicant's attention is directed to the rejection of claim 4 above.

On page 14 of applicant's remarks, Applicant argues that Stewart fails to teach the convex hull in determined in response to plurality of received and stored longitudinal and latitudinal coordinate positions from the GPS unit.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In this case, Wakamatsu and Dupray teach the convex hull in determined in response to plurality of received and stored longitudinal and latitudinal coordinate positions from the GPS unit (see Examiner's answer of claim 22 above), Park teaches generating (see Park, column 7, lines 15-18, see "creates a geographic point corresponding to current vehicle location") and the combination of Wakamatsu, Dupray and Park teaches Applicant's claimed limitation. In addition Applicant's attention is directed to the rejection of claim 22 above.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nghi H. Ly whose telephone number is (571) 272-7911. The examiner can normally be reached on 8:30 am-5:30 pm Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold can be reached on (571) 272-7905. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nghi H. Ly

10/28/05

Marsha D Banks-Harold

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